

Taxonomy of the *Ochyrotica concursa* group (Lepidoptera : Pterophoridae, Agdistinae)

C. GIELIS

Abstract. Specimens of the *Ochyrotica concursa* group have been examined. The type specimens of *O. concursa* (WALSINGHAM, 1891), *O. africana* (BIGOT, 1969) **comb. nov.** and *O. rufa* ARENBERGER, 1987 have been reexamined and their identity established. *O. yanoi* ARENBERGER, 1988 is recorded from Vietnam. Among the material an additional species has been recognized : *O. breviapex* **n. sp.** from Indonesia. The species are keyed and illustrated.

Samenvatting. Taxonomie van de *Ochyrotica concursa* group (Lepidoptera : Pterophoridae, Agdistinae)

Eksemplaren van de soortengroep *Ochyrotica concursa* werden onderzocht. De type-eksemplaren van *O. concursa* (WALSINGHAM, 1891), *O. africana* (BIGOT, 1969) **comb. nov.** en *O. rufa* ARENBERGER, 1987 werden opnieuw onderzocht en hun identiteit vastgesteld. Uit Vietnam wordt *O. yanoi* ARENBERGER, 1988 gemeld. In het onderzochte materiaal bevond zich een nog niet herkende soort : *O. breviapex* **n. sp.** uit Indonesië. Voor de groep werd een determinatietabel opgesteld en de soorten werden afgebeeld.

Résumé. Taxonomie au sein du groupe *Ochyrotica concursa* (Lepidoptera : Pterophoridae, Agdistinae)

Après examen des exemplaires types du groupe *Ochyrotica concursa*, l'identité exacte de *O. concursa* (WALSINGHAM, 1891), *O. africana* (BIGOT, 1969) **comb. nov.** et *O. rufa* ARENBERGER, 1987 a pu être établie. *O. yanoi* ARENBERGER, 1988 est signalé du Vietnam. Une nouvelle espèce a pu être identifiée, en l'occurrence *O. breviapex* **n. sp.** d'Indonésie. Une table de détermination du groupe, ainsi que des figures de chaque espèce sont jointes à l'article.

Gielis, C. : Mr. Haafkensstraat 36, NL-4128 CJ Lexmond, Netherlands.

In studying the collection of Pterophoridae from Indonesia in the Rijksmuseum van Natuurlijk Historie in Leiden, the Netherlands I noticed a remarkable variation in the wingshape in the specimens identified as *Ochyrotica concursa* WALSINGHAM. This struck me because a small series of specimens from Vietnam had been examined some time before in the Museum of Paris (MNHN) and these had a noticeably acute apex of the forewing. These findings encouraged me to examine the type-specimens of the insects of similar appearance in this genus.

The species in this group are very difficult to separate on external characters. The wingpattern in the species are very uniform and hardly give support to the separation of the species. The genital structure in both male and female however are very characteristic and diagnostic. In this publication the general characters of the species in the group will be given, followed by the keys and the species descriptions, with special attention to the diagnosis.

Description of combined characters :

Wingspan 11-17 mm. Head dorsally with prominent bifid scales. Antennae approximately half the wing length. Labial palpi as long as head, third segment small. Hindlegs with two pairs of prominent spurs of equal length. Colour ochreous-brown, markings dark brown. The markings consist of a

costal streak, a discal spot, an unevenly developed dorsal spot at 2/3 of the wing length and a spot at the dorsal 2/3 of the termen.

Male genitalia. The genitalia are symmetrical. Valvae rounded, elongate. In the basal 2/3 a prominent sacculus is present, followed by a small saccular blotch. From the junction of the sacculus and the saccular blotch a costal arm originates pointing to the juxta. The juxta is ill-developed. The vinculum, saccus structures and the 8th sternite are treated with the species, because of their diagnostic value. The aedeagus is curved, and has no cornuti.

Female genitalia. Papillae anales well developed. Apophyses posteriores 2 to 3 times the size of the papillae anales. Apophyses anteriores present in *O. concursa* and *O. breviapex*. The bursa copulatrix simple, without a signum (except in *O. yanoi* ARENBERGER and *O. breviapex* n. sp. which have a minute signum of small spiculae). The ductus bursae is treated with the species.

Key to the species of the *O. concursa* group

- 1. Apex of forewing short (fig. 2).....*O. breviapex* n. sp.
- Apex acutely extended (fig. 1)2
- 2. Colour dark ferruginous.....*O. rufa* ARENBERGER
- Colour ochreous-brown.....3
- 3. Terminal spot only developed in central forewing part, almost linear, margined pale brown.....*O. africana* BIGOT
- Terminal spot well developed in dorsal 2/3 of forewing4
- 4. Wingspan 14-16 mm..... *O. concursa* WALSINGHAM
- Wingspan 11-14 mm.....*O. yanoi* ARENBERGER

Key based on male genitalia

- 1. Costal arm absent (fig. 3).....*O. rufa* ARENBERGER
- Costal arm present2
- 2. 8th sternite bifurcate.....3
- 8th sternite not cleaved.....4
- 3. Sclerotized part of 8th sternite as long as wide (fig. 6)*O. concursa* WALSM.
- Sclerotized part twice as long as wide (fig. 7).....*O. africana* BIGOT
- 4. Vinculum with pronounced saccus (fig. 5).....*O. yanoi* ARENBERGER
- Vinculum without pronounced saccus (fig. 4)*O. breviapex* n. sp.

Key based on female genitalia

Note : Female genitalia of *O. rufa* ARENBERGER are not known.

- 1. Apophysis anterior present.....2
- Apophysis anterior absent3
- 2. Antrum of ductus long and slender, about 3-4 times as long as wide (fig. 11) *O. concursa* WALSINGHAM
- Antrum twice as long as wide (fig. 9).....*O. breviapex* n. sp.
- 3. Ductus bursae straight towards bursa copulatrix (fig. 10).....
-*O. africana* BIGOT
- Ductus bursae tortuous, after a turn a small section running parallel to the

sclerotized distal segment (fig. 8).....*O. yanoi* ARENBERGER

***Ochyrotica concursa* (WALSINGHAM, 1891) (figs. 6, 11)**

Steganodactyla concursa WALSINGHAM, 1891. *Entomologist's mon.Mag.* 1891: 241-242. Holotype, female, Ceylon, Pundaloya, no date, e.l. *Argyreia*, E.E. GREEN, prep. B.M. 18105, (BMNH) [examined].

Diagnosis: Wingspan 14-16 mm. Apex of forewing acutely extended. Terminal spot large, covering the dorsal 2/3 of the outer margin. Male genitalia with 8th sternite bifurcate, almost as wide as long. In the female genitalia the apophyses anteriores present. The antrum bursae excavated and gradually widening.

Biology: The type specimen has been bred on *Argyreia*. Another foodplant, *Lantana*, has been mentioned (FLETCHER 1920).

Distribution: Ceylon. The species has been recorded from India as well, but the author has not examined specimens from this country.

***Ochyrotica africana* (BIGOT, 1969) (figs. 7, 10)**

Steganodactyla africana BIGOT, 1969. *Revue Zool.Bot.afr.* 79 : 170-171. Holotype, male, Zaire, Rutshuru, III.1938, J. GHESQUIÈRE. (MRAC) [examined]. *comb. nov.*

Diagnosis: Wingspan 14-15 mm. Apex of forewing acutely extended. Terminal spot small, almost linear, parallel to the costal margin, ending at the central outer margin. Male genitalia with 8th sternite long and bifurcate. Female genitalia with a simple tubular ductus bursae in which the sclerotized segment is approximately three times longer than wide.

Biology: unknown.

Distribution: Zaire, Gabon, Tanzania.

***Ochyrotica yanoi* ARENBERGER, 1988 (figs. 1, 5, 8)**

Ochyrotica yanoi ARENBERGER, 1988, *Ent.Z., Frankf.a.M.* 98 : 276-279.

Material examined: 3 males, 3 females, 2 specimens with abdomen missing, Vietnam, Tonkin, Cho Ganh, III, e.l. feuilles patates (*Ipomaea batatas*), DUPORT, Genitalia slide CG 1866, 1867, 1871 and BIGOT 125. 1 female, Vietnam, Tonkin, Cho Cay, 20-31.IV, DUPORT, (MNHN, CG).

Misidentification: *Ochyrotica concursa* auct., MEYRICK 1929; YANO 1963.

Diagnosis: Wingspan 11-14 mm. Wingmarkings as in *O. concursa*. Male genitalia with long broad-based 8th sternite, extending into a long and slender top. The vinculum has a long, slender saccus. The female genitalia have a ductus bursae with a sclerotized antral segment, three to four times longer than wide. The ductus makes a sharp turn to posterior and runs parallel to the antrum for a short length. A small signum of minute spiculae is present.

Biology: The larvae feed on the leaves of *Ipomaea batatas* LAM.

Distribution: Japan; Vietnam: Tonkin. YANO (1963) supposed that he illustrated *O. concursa* WALSINGHAM and mentioned the species for the Japanese fauna. The genitalia, however, match the present species, recognized by ARENBERGER as separate.

***Ochyrotica breviapex* spec. nov. (figs. 2, 4, 9)**

Holotype, male, New Guinea, NE Wau, Morobe District, 1200 m, 29-30.I. 1967, malaise trap, leg. R.S., Genitalia slide CG 3004, (RMNH). Paratype: 1 female, Indonesia, New Guinea, Baliem Camp, 16-27.XI.1938, L.J.



Fig. 1: *Ochyrotica yanoi* ARENBERGER.
Vietnam, Cho Ganh, III (MNHN).



Fig. 2: *Ochyrotica breviapex* sp. n.
Holotype.

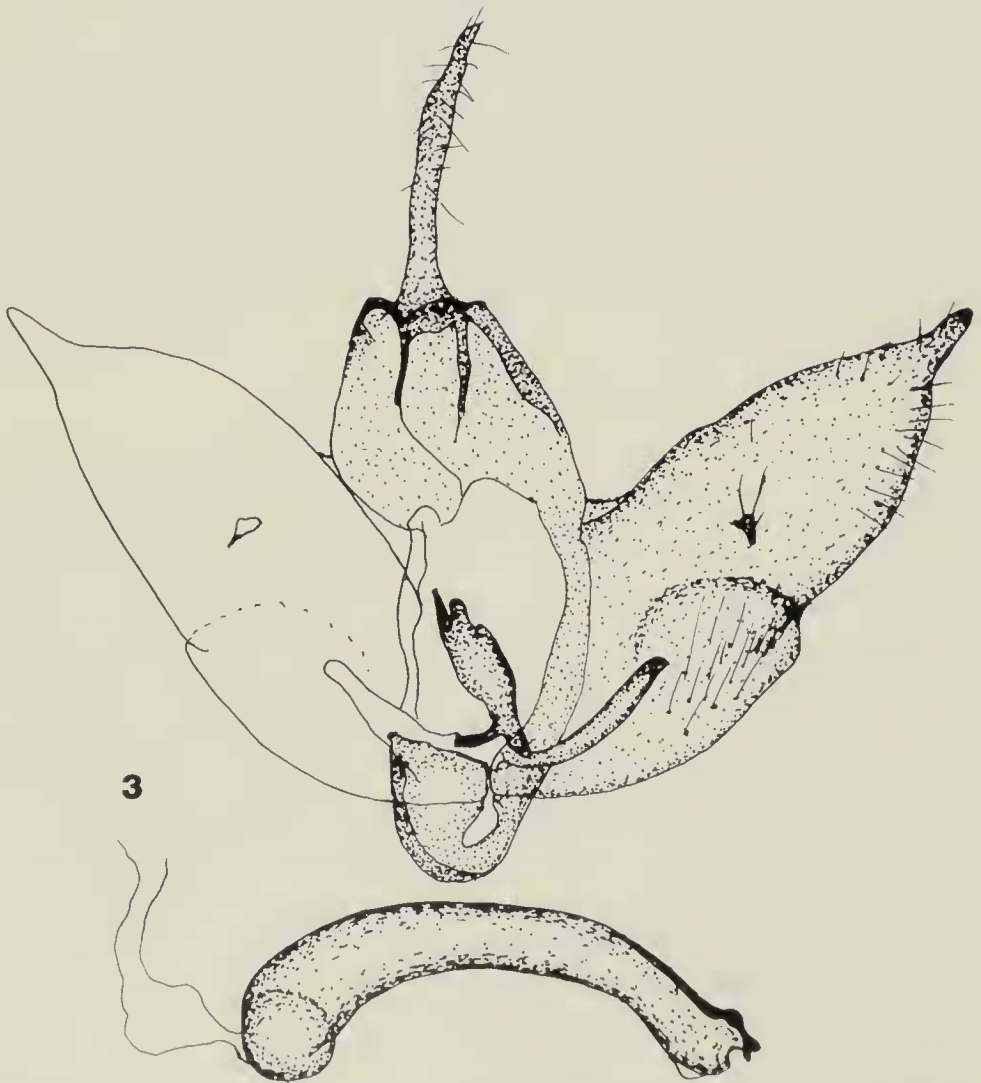


Fig. 3: *Ochyrotica rufa* ARENBERGER, 1987. Male genitalia. Maurice, no date. Genitalia slide BIGOT 112.

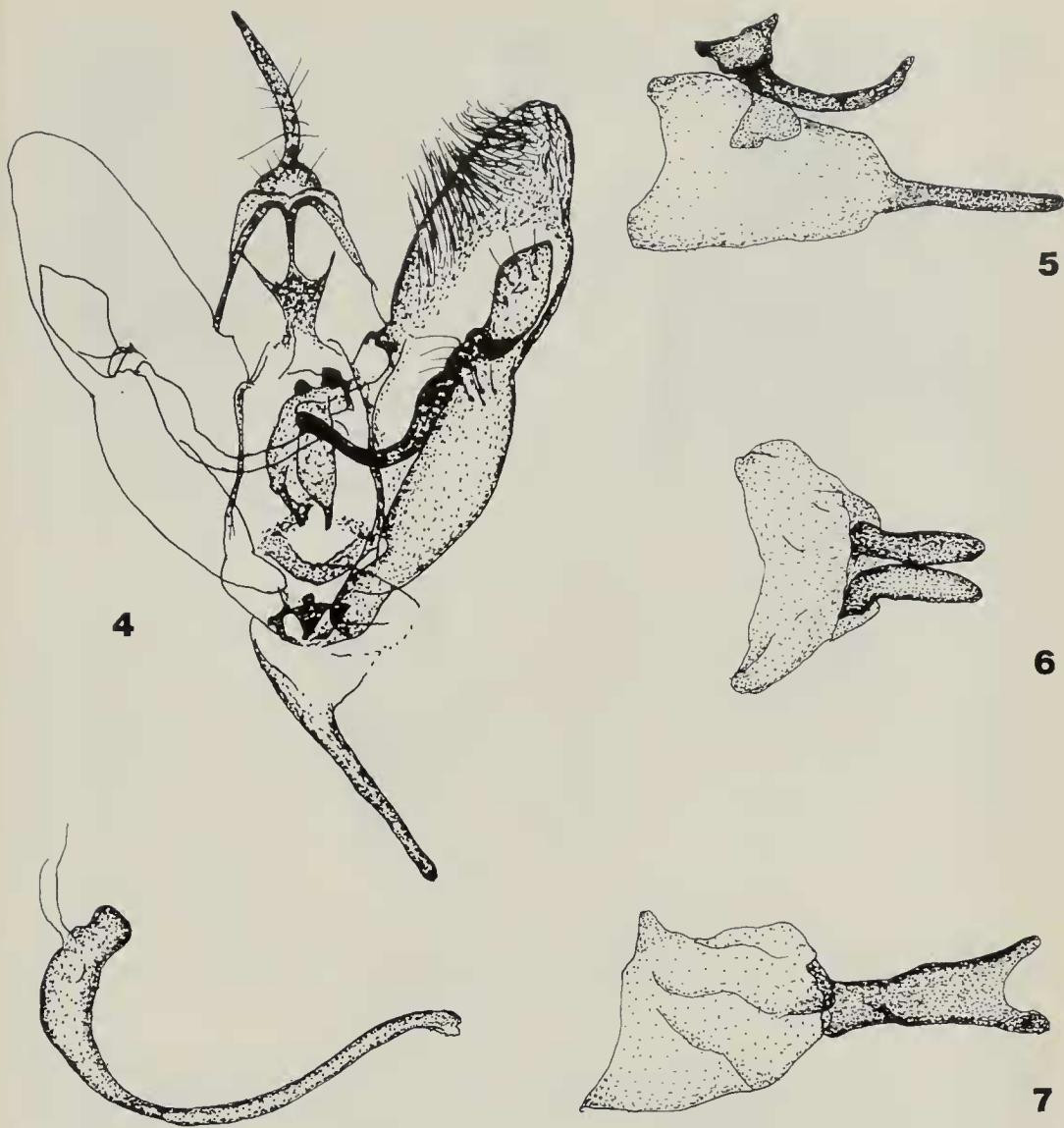


Fig. 4: *Ochyrotica breviapex* sp. n.. Male genitalia. Holotype.

Fig. 5: *Ochyrotica yanoi* ARENBERGER. Male genitalia, 8th sternite. Vietnam, Gho Ganh, III, Genitalia slide CG 1866 (MNHN).

Fig. 6: *Ochyrotica concursa* (WALSINGHAM, 1891). Male genitalia, paratype, 8th sternite.

Fig. 7: *Ochyrotica africana* (BIGOT, 1969). Male genitalia, 8th sternite, Tanzania, Uzungwa Mts., Chita Forest Res., 1500 m, 10.IX.1984, Genitalia slide CG 4033, Stoltze & Petersen (ZMUC).

TOXOPEUS (Neth. Ind.-Amer. New Guinea Exp.), Genitalia slide CG 3001 (RMNH); 2 males, New Guinea, NE Wau, Morobe District, 1200 m, 19-31.I. 1961, malaise trap, R. STRAATMAN (Bishop Museum); 1 abdomen missing, Indonesia, E. Borneo, Tabang, Bengen River, 125 m, 28.VIII.1956, A.M.R. WEGNER (CG).

Diagnosis: Wingspan 11-14 mm. Apex of forewing short. Male genitalia with short basal part of 8th segment, extending into a slender top. Female

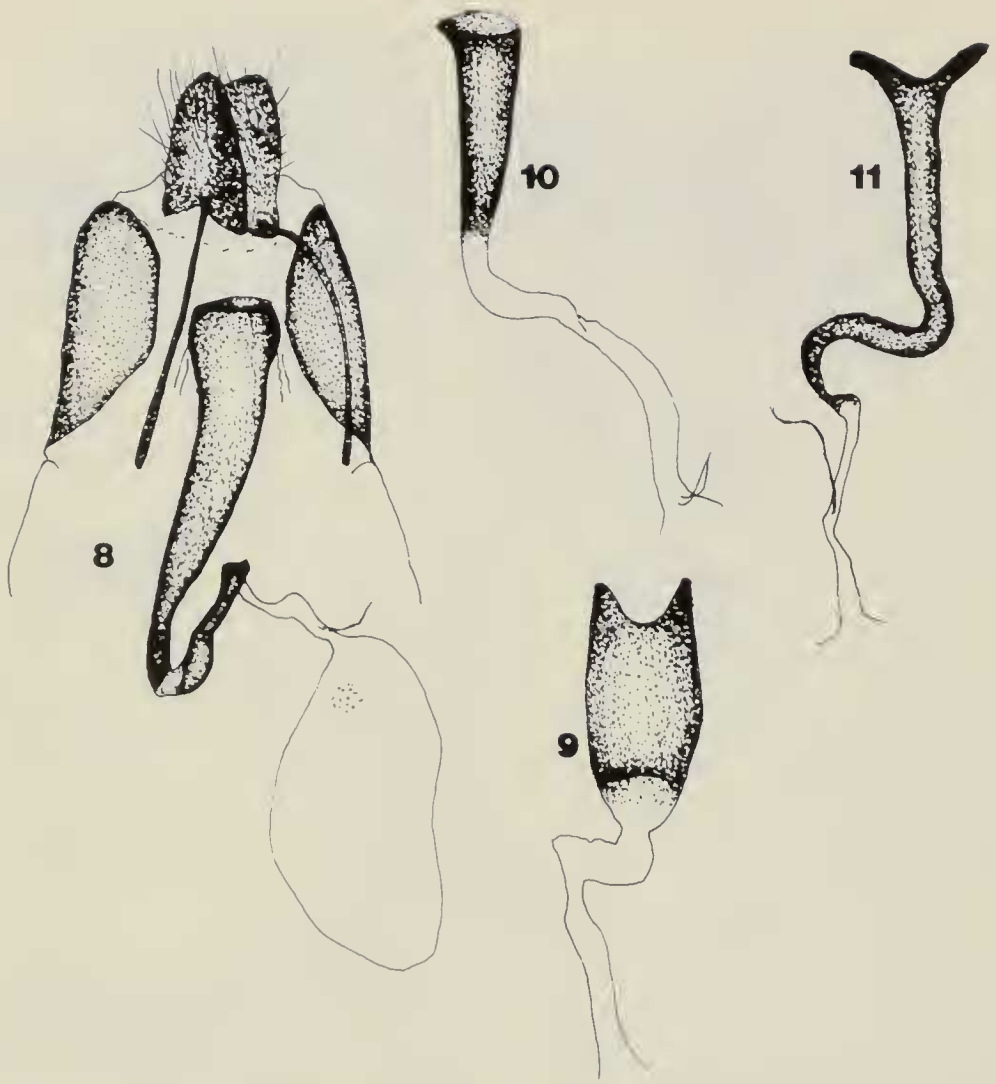


Fig. 8: *Ochyrotica yanoi* ARENBERGER, 1988. Female genitalia. Vietnam, Cho Ganh, III, Genitalia slide CG 1871 (MNHN).

Fig. 9: *Ochyrotica breviapex* sp. n. Female genitalia, paratype, ductus bursae.

Fig. 10: *Ochyrotica africana* (BIGOT, 1969). Female genitalia, ductus bursae. Tanzania, Uzungwa Mts., Chita Forest Res., 1500 m, 10.XI.1984, Genitalia slide CG 4034, Stoltze & Petersen (ZMUC).

Fig. 11: *Ochyrotica concursa* (WALSINGHAM, 1891). Holotype, Female genitalia, ductus bursae.

genitalia with curved antrum of ductus bursae, twice as long as wide. A small signum of minute spiculae is present. Apophyses anteriores small.

Biology: Unknown.

Distribution: Indonesia: Borneo, New Guinea; Papua New Guinea; Philippines: Mindanao, Misamis; Guadalcanal.

***Ochyrotica rufa* ARENBERGER, 1987 (fig. 3)**

Ochyrotica rufa ARENBERGER, 1987, *Ent.Z., Frankf.a.M.* 97 : 175-176.

Holotype, male, Madagascar, Batroka, 1954, E. DIEHL, Genitalia slide Ar. 3260 (BMNH) [examined].

Diagnosis: Wingspan 13-15 mm. Colour dark ferruginous-brown. Male genitalia differing by the shorter sacculus. The valva symmetrical, pointed, with a centrally placed small fibulum. Female unknown.

Biology: Unknown.

Distribution: Madagascar, Maurice.

Acknowledgements

This study was made possible through a grant of the Uyttenboogaart-Eliassen Stichting, Amsterdam. I wish to thank Drs. U. DALL'ASTA (MRAC), Tervuren, Belgium and Mr. M. SHAFFER (BMNH), London, Great Britain for giving me the opportunity to study the type-specimens present in their collections. Dr. R. DE JONG (RMNH), Leiden, Netherlands, Mr. O. KARSHOLT (ZMUC), Copenhagen, Denmark, Dr. G. LUQUET (MNHN), Paris, France and Dr. S.E. MILLER, Bishop Museum, Honolulu, Hawaii, U.S.A. for their loans of indispensable material; Drs. H.W. VAN DER WOLF for correcting the English text.

Literature

- Arenberger, E., 1988. Zur Identifizierung von *Ochyrotica concursa* Walsingham. - *Ent.Z., Frankf. a.M.* **98** : 273-279.
- Fletcher, D.S., 1920. Life histories of Pterophoridae. - *Mem.Dep.Agric.India, Ent.Ser.* **6** : 1-31.
- Meyrick, E., 1929, in: De Joannis: Lépidoptères hétérocères du Tonkin. - *Annls Soc.ent.Fr.* **98** : 708.
- Yano, K., 1963. Taxonomic and biological studies of Pterophoridae of Japan (Lepidoptera). - *Pacific Insects* **5** : 75-79.

Boekbesprekingen

Rungs, C.E.E. : *Liste-inventaire systématique et synonymique des Lépidoptères de Corse. Contribution à la connaissance de la faune entomologique de la Corse: Lepidoptera. Liste-inventaire des espèces de l'île.*

16,3 x 24,9 cm, 86 p., Suppl. *Alexanor* **15**, 45 Rue de Buffon, F-75005 Paris, gebonden in slappe kaft, 1988, 150,- FFr. (ISBN 2-903273-02-2)

Deze naamlijst van de Lepidoptera van Corsica ligt in het verlengde van de bekende «Liste Leraut» (1980). Na een korte inleiding (p. 7-10) volgt de naamlijst (p. 11-42). Deze volgt grotendeels de systematiek en nomenclatuur in LERAUT, maar in vele gevallen werd deze aangepast aan de stand van kennis anno 1988. Enkele taxa, welke niet in LERAUT zijn opgenomen, worden hier vermeld. In totaal zijn er nu 1384 soorten bekend van Corsica. In een korte «annexe» (p. 43-44) en «notes et commentaires» (p. 44-46) worden enkele twijfelachtige meldingen alsook mogelijk aanwezige soorten behandeld.

Verder is er nog een zeer volledige bibliografie (p. 47-61). Het werk wordt besloten door een index der afkortingen van auteursnamen (p. 65-67), een index van de wetenschappelijke namen (p. 69-86). De verzorgde lay-out van het werk is helemaal conform aan die van het tijdschrift *Alexanor*. Een must voor al wie geïnteresseerd is in de Lepidoptera van Corsica en van het westelijke Middellandse Zeegebied.

A. Olivier